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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NEAL KENNETH JACOBS and GREGG MICHAEL MORGAN

Appeal 2008-0791
Application 10/611,692
Technology Center 2800

Decided: August 6, 2008

Before KENNETH W. HAIRSTON, JOHN A. JEFFERY, and CARLA M. KRIVAK, *Administrative Patent Judges*.

KRIVAK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF CASE

Appellants' claimed invention is directed to "a light pipe for back lighting a keypad of an electronic device remote control" (Spec. 1:6-8). The light pipe is positioned on a top surface of the keypad between a top cover of the housing and the keypad such that light is dispersed through the light pipe to a plurality of buttons (Br. 3; Spec. 3:21-4:9).

Claim 12, reproduced below, is representative of the subject matter on appeal.

12. An electronic device remote control with back lighting, comprising:

a housing;

a circuit board having at least one surface mounted light emitting diode;

a keypad having a base positioned on a top surface of the circuit board, the base having a plurality of buttons extending away from the circuit board and at least one slot corresponding to the at least one surface mounted light emitting diode; and

a light pipe having openings corresponding to the buttons of the keypad, the light pipe being positioned on the keypad such that buttons extend through the openings therein so that light is dispersed through the light pipe to the buttons.

REFERENCES

Kuhfus	US 4,349,705	Sep 14. 1982
Kuzma	US 5,130,897	Jul. 14, 1992
Park	US 5,568,367	Oct. 22, 1996

The Examiner rejected claims 1-20 as follows:

Claims 12, 17, and 20 stand rejected under 35 U.S.C. § 102(b) based upon the teachings Kuzma;

Claims 1-4 and 9-11 stand rejected under 35 U.S.C. § 103(a) based upon the teachings of Kuzma and Park;

Claims 5-8 stand rejected under 35 U.S.C. § 103(a) based upon the teachings of Kuzma, Park, and Kuhfus;

Claims 13-16 stand rejected under 35 U.S.C. § 103(a) based upon the teachings of Kuzma and Kuhfus.

Claim 18 stands rejected under 35 U.S.C. § 103(a) based upon the teachings of Kuzma; and

Claim 19 stands rejected under 35 U.S.C. § 103(a) based upon the teachings of Kuzma and Park.

Appellants contend Kuzma, either alone or in combination with Park or Kuhfus, does not describe or suggest a remote control including a housing, a keypad having a base positioned on a top surface of a circuit board, and a light pipe positioned on the keypad (Br.8).

ISSUES

Did the Examiner err in rejecting claims 12, 17, and 20 under 35 U.S.C. § 102(b) as anticipated by Kuzma?

Did the Examiner err in rejecting claims 1-4 and 9-11 under 35 U.S.C. § 103(a) as obvious over Kuzma and Park?

Did the Examiner err in rejecting claims 5-8 under 35 U.S.C. § 103(a) as obvious over Kuzma, Park, and Kuhfus?

Did the Examiner err in rejecting claims 13-16 under 35 U.S.C.

§ 103(a) as obvious over Kuzma and Kuhfus?

Did the Examiner err in rejecting claim 18 under 35 U.S.C. § 103(a) as obvious over Kuzma?

Did the Examiner err in rejecting claim 19 under 35 U.S.C. § 103(a) as obvious over Kuzma and Park?

FINDINGS OF FACT

1. Appellants' invention includes a housing, a circuit board having a light emitting diode, a keypad having a base with a plurality of buttons, and a light pipe positioned on a top surface of the keypad (cl. 1; Fig. 1).

2. Kuzma teaches a circuit board having light emitting diodes thereon in addition to a flexible wiring trace, a key pad with a plurality of buttons, and a light pipe positioned on a top surface of the keypad (Fig. 1).

3. Park teaches a remote control device having top and bottom covers (Figs. 3 and 4).

4. Kuhfus teaches projections projecting from a rear face of a plate (Fig. 4, col. 3, ll. 18-19).

PRINCIPLES OF LAW

Anticipation

In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. *Perricone v. Medicis Pharmaceutical Corp.*, 432 F.3d 1368, 1375-76 (Fed. Cir. 2005), citing *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565 (Fed. Cir. 1992). “Anticipation of a patent claim requires a finding that the claim

at issue ‘reads on’ a prior art reference.” *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346 (Fed. Cir. 1999) (“In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless of whether it also covers subject matter not in the prior art.” *Id.* at 1346) (internal citations omitted).

It is well settled that if a prior art device inherently possesses the capability of functioning in the manner claimed; anticipation exists regardless of whether there was recognition that it could be used to perform the claimed function. *See, e.g., In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). *See also LaBounty Mfg. v. Int'l Trade Comm'n*, 958 F.2d 1066, 1075 (Fed. Cir. 1992) (in quoting with approval from *Dwight & Lloyd Sintering Co. v. Greenawalt*, 27 F.2d 823, 828 (2d Cir. 1928)):

The use for which the [anticipatory] apparatus was intended is irrelevant, if it could be employed without change for the purposes of the patent; the statute authorizes the patenting of machines, not of their uses.

[Alteration in original.]

Id. at 1075.

Obviousness

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). “[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). If the Examiner’s burden is met, the burden

then shifts to the Appellants to overcome the *prima facie* case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *Id.* Furthermore,

‘there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’ . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

In particular, the Supreme Court emphasized “the principles laid down in *Graham* reaffirmed the ‘functional approach’ of *Hotchkiss*, 11 How. 248.” *KSR*, 127 S.Ct. at 1739 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966) (emphasis added)), and reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* The Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740. The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*

“[A] claim preamble has the import that the claim as a whole suggests for it.” *Bell Comm. Res., Inc. v. Vitalink Comm. Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995). Where a patentee uses the claim preamble to recite structural limitations of his claimed invention, the PTO and courts give effect to that usage. *See id.*; *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989). Conversely, where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation. *See Bell Communications*, 55 F.3d at 620; *Kropa v. Robie*, 187 F.2d 150, 152 (CCPA 1951).

ANALYSIS

Anticipation *Claims 12, 17, and 20*

We first consider the Examiner’s rejection of claims 12, 17, and 20 under 35 U.S.C. § 102(b) over Kuzma. As an initial matter, our decision is with respect to independent claim 12, which is representative of the claims. Turning to the rejection, the Examiner indicated how the claimed invention is deemed to be fully met by the disclosure of Kuzma. Specifically, the Examiner states that Kuzma discloses an electronic device that includes a housing, a circuit board having at least one surface mounted diode, a keypad on top of the circuit board and having a base including a plurality of buttons extending away from the circuit board and a slot corresponding to at least

one surface mounted light emitting diode, and a light pipe having openings corresponding to the buttons of the key pad, the light pipe positioned on the keypad such that the buttons extend through the openings so that light is dispersed through the light pipe to the buttons (Ans. 3).

Appellants contend that Kuzma describes an illuminated telephone dial (Br. 7) and not a remote control (Br. 8) and that the flexible wire tracing is positioned on a top surface of a circuit board (Br. 7) rather than a keypad (Br. 8). Thus Appellants' claims cannot be anticipated by Kuzma (Br. 8). We do not agree.

Although Appellants' invention is directed to a remote control and Kuzma is directed to a telephone dial, both are electronic keypad devices. Their use is irrelevant for our analysis. As noted above, if a prior art device inherently possesses the capability of functioning in the manner claimed by Appellants, anticipation exists regardless of whether it was recognized that it could be used to perform the claimed function. *See In re Schreiber, supra.* Therefore, the use for which Kuzma was intended is irrelevant as the reference fully meets all recited structural limitations. *See id.*

First, we find no error in the Examiner's interpretation (Ans. 9) that since the "remote control" feature is only recited in the preamble, it does not structurally limit the claims (Ans. 9). The body of the claim defines the structurally complete invention—a back lit key pad—and uses the preamble only to state an intended use for the invention.

We find that Kuzma's illuminated telephone dial is capable of performing this intended use—remote control—at least with respect to its ability to control functions remote from that device. In that sense, the

telephone dial likewise fully meets the “remote control” limitation recited in the preamble of claim 12 as the Examiner indicates (Ans. 9).

Furthermore, Kuzma teaches the flexible wiring trace is positioned on top of the circuit board rather than reciting a keypad on top of a circuit board as claimed. However, the keypad in Kuzma, implicitly, for all intents and purposes, is located on the circuit of the circuit board (compare Fig. 1 of Appellants’ invention to Fig. 1 of Kuzma) since the circuit board of Figure 1 of Kuzma includes wiring thereon—and is not merely a “board.”

Because Kuzma teaches every feature of claim 12, Appellants have not persuaded us that the Examiner erred in finding that claim 12 is anticipated by Kuzma. Since Appellants argued claims 12, 17, and 20 together, we also find claims 17 and 20 anticipated by Kuzma for the reasons set forth above.

Obviousness
Claims 1-4 and 9-11

The Examiner rejected claims 1-4 and 9-11 under § 103 as obvious over Kuzma and Park. The Examiner asserts that Kuzma does not specifically teach a housing including a bottom cover (Ans. 4), but that Park teaches a remote control device having a housing with top and bottom covers (Ans. 5). Thus it would have been obvious to one ordinarily skilled in the art at the time of the invention to modify Kuzma to include a top and bottom cover (Ans. 5).

Appellants contend Kuzma does not describe or suggest a remote control including a housing (Br. 9), but rather teaches an illuminated telephone dial. However, as noted by the Examiner, the “remote control”

feature is recited in the preamble only and does not provide structural limitations (Ans. 11). The body of the claim defines the structurally complete invention—a back lit key pad—and uses the preamble only to state an intended use for the invention. Therefore, the preamble does not limit the claim structurally. But as we noted above, we nonetheless find that Kuzma’s telephone dial likewise fully meets the “remote control” limitation. Furthermore, a person ordinarily skilled in the art would recognize that a backlit keypad used for a telephone would improve a remote control keypad in the same way. Thus, it would be a predictable variation to apply a backlit keypad to a remote control since the actual application is not beyond the reach of one ordinarily skilled in the art at the time of the invention. *See KSR, supra.*

Appellants also contend that Kuzma teaches a flexible wiring trace on top of a circuit board such that the keypad is not positioned on a top surface of the circuit board as claimed. Again, we do not agree.

The circuit board of Kuzma is a board on which a flexible wiring trace is placed. The keypad of Kuzma is then placed on top of the flexible wiring trace (Fig. 1). Under *KSR*, it would be an obvious inference by one ordinarily skilled in the art that the circuit board and flexible wiring trace make up the circuit board recited in the claims. Thus, the keypad of Kuzma is considered positioned on the circuit board as claimed.

Lastly, Appellants argue that Park does not describe or suggest the remote control, including a housing, a circuit board, keypad and a light pipe as claimed. Rather, Appellants argue Park teaches a transparent elastometric plate with push buttons, thus the combination of Kuzma and Park do not

“describe or suggest appellants’ arrangement recited in claims 1-4 and 9-11” (Br. 10).

We agree with the Examiner that Park was merely cited to show that the housing not shown in Kuzma was known to one ordinarily skilled in the art at the time of the invention. It should further be noted, that although Kuzma does not specifically show a housing in the drawings, one must be present for the “interior” of the device to be protected. Kuzma does show a dial frame 10 in Figure 1 that is attached to the circuit board 60 that together inherently form a housing. It would, therefore, be obvious to a skilled artisan at the time of the invention to modify Kuzma to include a housing as taught by Park.

For the reasons set forth above, and because claims 1-4 and 9-11 stand or fall together (Br. 10), we sustain the Examiner’s rejection and find these claims obvious over Kuzma and Park.

Kuzma, Park, and Kuhfus
Claims 5-8

The Examiner rejected claims 5-8 as obvious over Kuzma, Park, and Kuhfus stating that Kuzma and Park do not teach a top cover including dividers, the dividers contacting the light pipe, the base of the keypad through cut-outs in the light pipe, or contacting the base of a keypad (Ans. 6).

Appellants assert that Kuhfus describes a lighted telephone dial (Br. 13) and that it “teaches a completely different arrangement in which a light guide plate of a telephone dial is positioned on an LED frame which is

positioned on a pushbutton member. Therefore, Appellants' claims 5-8 are not rendered obvious by Kuhfus." (Br. 13)

Again, although Appellants' arguments rely principally on Kuhfus, the Examiner relied on this reference merely to show that it was obvious at the time of the invention for a skilled artisan to use "protrusions (dividers) molded on the back or under the surface of the bezel 30 (top cover)" that can be "passed through holes in the other members and the protrusions molded over on the back or undersurface of the PCB 10 [Column 2, Lines 7-11; underlines added by examiner]." (Ans. 7) These protrusions/dividers could be used to modify the device of Kuzma and Park to obtain the invention in claims 5-8. We agree with the Examiner.

Appellants provide no arguments or evidence as to why the dividers taught by Kuhfus could not be combined with Kuzma and Park. Thus, Appellants have not persuaded us of error in the Examiner's rejection of these claims over the collective teachings of Kuzma, Park, and Kuhfus. We therefore sustain the Examiner's rejection of claims 5-8, which stand or fall together (Br. 14), over Kuzma, Park, and Kuhfus.

Kuzma and Kuhfus
Claims 13-16

The Examiner rejected claims 13-16 over Kuzma and Kuhfus stating that Kuzma teaches all the features of the claims except a top cover including dividers extending from an inside surface of the top cover, the dividers contacting the light pipe, the base of the keypad and the keypad. The Examiner contends that Kuhfus teaches these features for the reasons set forth above with respect to claims 5-8 (Ans. 7).

Appellants assert that neither Kuzma nor Kuhfus teaches or suggests a remote control (Br. 15) and that Kuhfus teaches a completely different arrangement than Kuzma (Br. 16), thus the combination of Kuzma and Kuhfus does not teach or suggest Appellants' arrangement recited in claims 13-16.

Again, Kuhfus provides dividers as recited in claims 13-16 to the device of Kuzma to obtain the present invention. Appellants provide no arguments why dividers taught by Kuhfus could not be combined with Kuzma. Thus, Appellants' have not persuaded us of error in the Examiner's rejection of these claims over the collective teachings of Kuzma and Kuhfus. We therefore sustain the Examiner's rejection of claims 13-16, which stand or fall together (Br. 16), over Kuzma and Kuhfus.

Kuzma
Claim 18

The Examiner rejected claim 18 as obvious over Kuzma stating that Kuzma teaches all of the claimed invention except for the light pipe being the same size as the keypad. The Examiner asserts that it would be an obvious design choice to one of ordinary skill in the art at the time of the invention to make the light pipe the same size as the keypad (Ans. 8).

Appellants provide the same arguments as those made with respect to independent claim 12, from which claim 18 depends. Appellants have not persuaded us of error in the Examiner's rejection of this claim over Kuzma. Thus, for the reasons set forth above, we sustain the Examiner's rejection of claim 18 over Kuzma.

Kuzma and Park
Claim 19

The Examiner rejected claim 19 as obvious over Kuzma and Park stating that Kuzma teaches all of the claimed invention except that Kuzma does not specifically teach conductive contacts on the circuit board (Ans. 8). However, Park teaches a circuit board including light emitting diodes and conductive contacts corresponding to buttons on a keypad (Ans. 9). Thus it would be obvious to a skilled artisan at the time of the invention to modify Kuzma to include a circuit board having LEDs with conductive contacts as taught by Park (Ans. 9). We agree.

Appellants merely provide arguments that Kuzma cannot be combined with Park. As noted above with respect to claims 1-4 and 9-11, Park in this instance was cited for its teaching of LEDs with conductive contacts. Further, Kuzma inherently possesses this feature as the LEDs in Kuzma would be unable to light unless there were buttons that included contacts that corresponded to conductive contacts on the circuit board such that when the contacts contact the conductive contacts an electrical connection is made.

Appellants provide no arguments as to why Park cannot be combined with Kuzma. Thus, because Appellants have not persuaded us of error in the Examiner's rejection of this claim over the collective teachings of Kuzma and Park, we sustain the Examiner's rejection of claim 19 over Kuzma and Park.

CONCLUSION

We therefore conclude that the Examiner did not err in rejecting claims 12, 17, and 20 under 35 U.S.C. §102(b) and claims 1-11, 13-16, 18, and 19 under 35 U.S.C. §103(a).

DECISION

We affirm the decision of the Examiner rejecting claims 1-20.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

Appeal 2008-0791
Application 10/611,692

AFFIRMED

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